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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte AARON SEUNG-JOON RHEE, HENRY L. MIKLOWCIC and
PETER W. MANDERS

Appeal 2008-2272
Application 10/690,680
Technology Center 1700

Decided: July 21, 2008

Before EDWARD C. KIMLIN, CATHERINE Q. TIMM, and
ROMULO H. DELMENDO, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

1 Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1 and 3-8. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

I. BACKGROUND

The invention relates to a method for forming a stretch wrap thermoplastic film from a composition comprising a linear low density polyethylene (LLDPE) resin and zinc oxide. (Spec. 1, l. 18 to 2, l. 2). The zinc oxide is included in the composition in a concentration of up to 500 parts per million (ppm) by weight and with a mean particle size of no greater than 0.05 microns. (Spec. 1, l. 18 to 2, l. 2). Claim 5 is illustrative of the subject matter on appeal:

5. A method to improve the cling force of a stretch wrap film, the method comprising the steps of mixing at least 1 linear low density polyethylene resin with up to 500 parts per million by weight of the total composition of ultra-fine zinc oxide, the ultra-fine zinc oxide having a mean particle size no greater than 0.05 micrometers; and forming the mixture into a stretch wrap film.

The Examiner relies on the following prior art references to show unpatentability:

McKinney et al.	US 4,430,289	Feb. 7, 1984
Ealer	US 4,594,213	Jun. 10, 1986
Matteodo	US 5,132,344	Jul. 21, 1992

The Examiner maintains the following rejections:

1. Claim 3 rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention;

2. Claims 1 and 3-7 rejected under 35 U.S.C. § 103(a) as obvious over McKinney et al. (“McKinney”);

3. Claim 8 rejected under 35 U.S.C. § 103(a) as obvious over McKinney in view of Ealer;

4. Claims 1 and 3-7 rejected under 35 U.S.C. § 103(a) as obvious over Matteodo; and

5. Claim 8 rejected under 35 U.S.C. § 103(a) as obvious over Matteodo in view of Ealer.

II. DISCUSSION

Rejection under 35 U.S.C. § 112, second paragraph

The Examiner rejects claim 3 under 35 U.S.C. § 112, second paragraph, on the basis that the claim limitation “about 100 ppm” as recited in claim 3 is indefinite as being broader than the claim limitation of “up to 100 ppm” recited in claim 1, from which claim 3 depends. (Ans. 3).

Appellants provide no arguments to suggest that claim 3 is not indefinite. (App. Br. 9). Rather, Appellants argue that the Examiner erred in not entering an Amendment to claim 3 that was filed June 19, 2007. (App. Br. 9). The Examiner responds that “[t]he amendment was not entered due to the addition of new Claim 9 in that amendment, which would have required at least further consideration.” (Ans. 7).

Decisions within the Examiner's discretion, such as whether or not to enter an amendment after final rejection, are reviewed only by way of petition, not appeal. *See In re Berger*, 279 F.3d 975, 984-85 (Fed. Cir. 2002) (Examiner's refusal to enter amendment after final may be the subject of a petition, but may not be reviewed by the Board); 37 C.F.R. § 1.127 ("From the refusal of the primary examiner to admit an amendment, in whole or in part, a petition will lie to the Director under § 1.181."). Therefore, since Appellants did not contest the merits of Examiner's rejection, we summarily

affirm the rejection of claim 3 under 35 U.S.C. § 112, second paragraph, for the reason cited by the Examiner in the rejection. *Berger*, 279 F.3d at 984 (where Appellant only argued that the examiner improperly refused to enter amendments to obviate a § 112, second paragraph, rejection and did not contest the merits of the rejection in his brief, the issue is waived by Appellant).

Rejections under 35 U.S.C. § 103 based on McKinney as the primary reference

Claims 1 and 3-7 are rejected under 35 U.S.C. § 103(a) as obvious over McKinney, and claim 8, which depends from claim 5, is rejected under 35 U.S.C. § 103(a) as obvious over McKinney in view of Ealer. Appellants “traverse these rejections on the grounds that McKinney does not inherently disclose the method of the current claims but, rather, teaches away from the current invention.” (App. Br. 9).¹

Appellants have not separately argued any of claims 1 and 3-7. (App. Br. 9-10). Accordingly, we have chosen to address representative claim 5. See 37 C.F.R. § 41.37(c)(1)(vii) (“When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone.”).

¹ We acknowledge that “the [Appellants’] argument does not provide substantive arguments against the rejection of Claim 8 aside from its dependence on Claim 5,” as noted by the Examiner. (Ans. 8). While claim 8 was subject to a separate ground of rejection relative to claim 5, Appellants have relied on the same arguments for both claims. We address both grounds of rejections accordingly.

Appellants argue that “McKinney does not disclose, even inherently, a method to improve the cling force of a stretch film.” (App. Br. 9). Rather, Appellants suggest that “the tables in Examples 2 and 3 of McKinney show that the addition of the additives decreases the cling force of the films, as measured by film-to-film slip angle.” (App. Br. 9-10). Based on these Examples, Appellants argue that McKinney “does not ‘necessarily and inevitably’ improve the cling angle,” as is required for inherency and “teaches away from the current invention.” (App. Br. 10).

The Examiner notes that “there is no factual dispute” regarding the elements recited in the claim, but rather “Appellants’ argument is, therefore, solely based upon the assertion that the reference fails to teach a resulting property recited by the preamble.” (Ans. 8). The Examiner also argues that “[t]he resulting products of Appellants and the prior art are structurally and compositionally identical, and made by the same or substantially the same process, and therefore a *prima facie* case of obviousness has been established by the rejection above.” (Ans. 9). The Examiner also identifies that Examples 2 and 3 of McKinney use particles at particle sizes and in amounts that are “substantially different than the claimed invention,” and, thus, have little probative value. (Ans. 9-10). The Examiner argues that the examples provided by Appellants are not effective to show unexpected results since “[o]ne of ordinary skill in the art recognizes and anticipates the properties of the film materials prior to the inclusion of additives.” (Ans. 10).

The issue on appeal arising from the contentions of Appellants and the Examiner is: have Appellants shown that the Examiner reversibly erred in

concluding that the claimed invention would have been obvious to one of ordinary skill in the art based on the teachings of McKinney?

The evidence of record supports the following Findings of Facts (FF):

1. The phrase “to improve the cling force of a stretch wrap film” is only provided in the preamble of claim 5. (Claim 5).
2. Appellants’ Specification does not define what is meant by the phrase “to improve the cling force of a stretch wrap film.” (Spec.)
3. Appellants’ Specification does not qualify or quantify what constitutes an improvement in cling force of a stretch wrap film. (Spec.)
4. Appellants’ Specification merely suggests that such improvement is achieved by forming a composition having the claimed components with zinc oxide present within the claimed particle size range and within the claimed concentration range. (Spec. 1, l. 18 to 2, l. 2).
5. Example 3 in Appellants’ Specification indicates that a concentration of 20 ppm ultra-fine zinc oxide (NanoX), the particle size of which is not disclosed by Appellants in the Specification, provides a higher cling force (measured in gm) than two commercial grades of zinc oxide (Kadox) at 840 ppm, the particle size of which is also not disclosed by Appellants. (Spec. 4, ll. 19-21 and 8, l. 4 to 9, l. 3).
6. Examples 4-7 in Appellants’ Specification indicate that concentrations of 100 and 50 ppm ultra-fine zinc oxide (NanoX) provide a higher cling force (measured in gm) than

concentrations of 840 and 350 ppm of commercial grades of zinc oxide (Kadox). (Spec. 4, ll. 19-21 and 8, l. 4 to 9, l. 3).

7. Zinc oxide is one of the examples of inorganic additives that McKinney teaches adding to an LLDPE polymer for making films. (McKinney, col. 2, ll. 15-20; col. 3, ll. 34-40; col. 4, ll. 14-17).
8. McKinney teaches a particle size for the inorganic additive of “about 0.02 to about 40 microns.” (McKinney, col. 4, ll. 19-21).
9. McKinney teaches a concentration of from about 0.01 to about 2.0 weight percent (100-20000 ppm) of the inorganic additive. (McKinney, col. 3, ll. 34-40).

Because claim interpretation normally controls the rest of the decision making process, every analysis must begin with the key legal question: what is the invention claimed? *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567-1568 (Fed. Cir. 1987). We note that the language “to improve the cling force of stretch wrap film” occurs solely in the preamble of claim 5. (FF 1). It is only when terms in the preamble “give life, meaning and vitality to the claim” that they are given patentable weight. *Bristol-Myers Squibb Co. v. Ben Venue Labs. Inc.*, 246 F.3d 1368, 1373-74 (Fed. Cir. 2001) (“If the body of the claim sets out the complete invention, and the preamble is not necessary to give ‘life, meaning and vitality’ to the claim, ‘then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation.’”) (citing *Pitney Bowes, Inc. v. Hewlett Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)).

The preamble language recites no particular cling force and provides no standard of comparison for improvement of cling force. Moreover, the body of the claim is a self-contained description of the single process step, i.e., forming a stretch wrap film from a particular composition. The step of forming a stretch wrap film from a first composition is performed in the same way regardless of whether or not the cling force is improved. Thus, the body of the claim sets out the complete invention, and the preamble is not necessary to give “life, meaning and vitality” to the claim. *Bristol-Myers*, 246 F.3d at 1373-74.

Further, we find nothing in the Specification to suggest that the preamble language expresses anything other than an intended purpose of improving cling wrap. (FF 2-6). Our reviewing court and its predecessors have held that such preamble language is non-limiting. *See Bristol-Myers*, 246 F.3d at 1373-74 (holding that the preamble phrase “for reducing hematologic toxicity” in a claim drawn to a method of medicating a patient was non-limiting, and merely expressing a purpose for the method); *STX LLC. v. Brine*, 211 F.3d 588, 591 (Fed. Cir. 2000) (holding that the preamble phrase “which provides improved playing and handling characteristics” in a claim drawn to a head for a lacrosse stick was not a claim limitation); *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997) (“where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation.”). Therefore, we do not consider the language “to improve the cling force of stretch wrap film” to limit the scope of claim 5.

McKinney teaches forming a stretch wrap film from the claimed components. (FF 7). Further, McKinney teaches the use of zinc oxide as an

additive in ranges of particle size and concentration that overlap with the ranges claimed. (FF 7-9). Our reviewing court has determined that a claimed invention can be rendered *prima facie* obvious by a prior art reference that discloses a range that touches the range recited in the claim. *In re Geisler*, 116 F.3d 1465, 1469 (Fed. Cir. 1997)(*citing In re Malagari*, 499 F.2d 1297, 1303 (CCPA 1974)). Thus, we determine that it would have been obvious to one of ordinary skill in the art having the teachings of McKinney to form a stretch wrap film from a composition of LLDPE and zinc oxide, where the zinc oxide has a concentration of up to 500 ppm and a particle size of no greater than 0.05 micrometers. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007). Accordingly, we sustain the Examiner's rejections of claims 1 and 3-7 under 35 U.S.C. § 103(a) over McKinney. With respect to claim 8, Appellants advance no additional arguments, and, therefore, we sustain the rejection of claim 8 under 35 U.S.C. § 103(a) over McKinney in view of Ealer for the reasons presented above.

Rejections under 35 U.S.C. § 103 based on Matteodo as the primary reference

Claims 1 and 3-7 are rejected under 35 U.S.C. § 103(a) as obvious over Matteodo, and claim 8, which depends from claim 5, is rejected under 35 U.S.C. § 103(a) as obvious over Matteodo in view of Ealer.

Appellants have not separately argued any of claims 1 and 3-7. (App. Br. 9-10). Accordingly, we have chosen to address representative claim 5. *See* 37 C.F.R. § 41.37(c)(1)(vii) (“When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select

a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone.”).

Appellants argue that “Matteodo fails to provide any teaching relevant to a method for improving the cling force of a stretch film.” (App. Br. 10). Appellants further argue that “there is no teaching of the combination of a small amount of zinc oxide having a small average diameter particle size.” (App. Br. 10). Appellants argue that none of the preferred embodiments or examples of Matteodo teaches the particle size and amounts of zinc oxide claimed, but rather the preferences teach away from a smaller particles size. (App. Br. 11). Appellants also argue that “Matteodo states that using less than 100 ppm is actually worse than using none at all,” which teaches away from the lower concentration range claimed. (App. Br. 11). Appellants also argue that the amounts and sizes of the zinc oxide particles claimed lead to surprising and unexpected results. (App. Br. 11).

The Examiner notes that “it does not appear that Appellants make any factual dispute” regarding the elements recited in claim 5. (Ans. 11). The Examiner also notes that Matteodo teaches amounts and sizes which meet the endpoints of, or overlap the claimed ranges, and directs our attention to the arguments made above regarding McKinney. (Ans. 11). The Examiner further reiterates that the examples provided by Appellants are not effective to show unexpected results. (Ans. 11-12). Finally, the Examiner notes that “[t]here are no substantive arguments against the Ealer reference.” (Ans. 12).

The issue on appeal arising from the contentions of Appellants and the Examiner is: have Appellants shown that the Examiner reversibly erred in

concluding that the claimed invention would have been obvious to one of ordinary skill in the art based on the teachings of Matteodo?

The evidence of record supports the following additional Findings of Facts (FF):

10. Matteodo teaches a LLDPE composition including 100 to less than 2000 ppm by weight of zinc oxide. (Matteodo, col. 2, ll. 31-36 and 61-64).
11. Matteodo teaches that “[t]he zinc oxide is preferably used as a powder having a weight average mean diameter from 0.05 to 2.0 μm .” (Matteodo, col. 3, ll. 31-33).
12. Matteodo teaches forming a film with the composition. (Matteodo, col. 5, ll. 27-31).
13. Matteodo teaches that whiteness is low in the absence of zinc oxide and that whiteness is even lower when zinc oxide is used at a concentration of less than 100 ppm. (Matteodo, col. 8, l. 65-col. 9, l. 2).

For the reasons discussed above, we do not consider the language “to improve the cling force of stretch wrap film” to limit the scope of claim 5.

Matteodo teaches forming a film from the claimed components. (FF 10-12). Further, Matteodo teaches the use of zinc oxide in ranges of particle size and concentration that overlap with the ranges claimed. (FF 10-11). Thus, for the same reasons discussed above, we determine that it would have been obvious to one of ordinary skill in the art having the teachings of Matteodo to form a stretch wrap film from a composition of LLDPE and zinc oxide, where the zinc oxide has a concentration of up to 500 ppm and a particle size of no greater than 0.05 micrometers.

The Examiner is correct that a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments. *Merck & Co v. Biocraft Laboratories*, 874 F.2d 804, 807 (Fed. Cir. 1989). Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. *In re Susi*, 440 F.2d 442, 446 n.3 (CCPA 1971). As such, we find that preferred amounts and particle sizes for zinc oxide outside of the claimed range do not teach away from one of ordinary skill in the art using the extremes of the broadest ranges of amounts and particle sizes of zinc oxide taught by Matteodo, which fall within the scope of the ranges claimed.

Matteodo teaches that desired whiteness is low in the absence of zinc oxide and is even lower when used at a concentration less than 100 ppm than when no zinc oxide is used at all. (FF 13). While Appellants argue that Matteodo's analysis of whiteness teaches away from including zinc oxide in an amount less than 100 ppm (App. Br. 11), we have chosen representative claim 5, which calls for concentrations of zinc oxide "up to 500 ppm," which falls well within the range of 100 to 2000 ppm taught by Matteodo. (FF 11). As discussed above, a claimed invention can be rendered *prima facie* obvious by a prior art reference that discloses a range that touches the range recited in the claim. *See Geisler*, 116 F.3d at 1469. Thus, we determine that it would have been obvious to one of ordinary skill in the art having the teachings of Matteodo to form a stretch wrap film from a composition of LLDPE and zinc oxide, where the zinc oxide has a concentration of up to 500 ppm and a particle size of no greater than 0.05 micrometers. *See KSR*, 127 S. Ct. at 1739.

Accordingly, we sustain the Examiner's rejections of claims 1 and 3-7 under 35 U.S.C. § 103(a) over Matteodo. Appellants did not request review of the rejection of claim 8 based on Matteodo in view of Ealer. (App. Br. 10-11). We acknowledge that “[t]here are no substantive arguments against the Ealer reference,” as noted by the Examiner. (Ans. 8). Thus, we summarily sustain the rejection of claim 8 under 35 U.S.C. § 103(a) over Matteodo in view of Ealer.

III. CONCLUSION

We sustain the Examiner's rejections under 35 U.S.C. § 112, second paragraph, and 35 U.S.C. § 103(a).

IV. DECISION

The decision of the Examiner is affirmed.

V. TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tc

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Application 10/690,680

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